"PRE-MEASUREMENT SHEETS"

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

"FIRST AND FINAL BILL"

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Pre-Measurement : 12/3/19

Detailed Measurements

Item No	Discription of Item		No	Length	Breadth	Depth	Qty	Unit
1	Removing & Refixing stone slabs of drains and pointing in C.M (1:3)							
	Desilt of Drain							
	JP Colony road							
			1	18.00	0.90		16.20	
			1	22.00	0.90		19.80	
			1	14.00	0.90		12.60	
			1	20.00	0.90		18.00	
			1	16.00	0.90		14.40	
			1	18.00	0.90		16.20	
			1	13.00	0.90		11.70	
						Present Qty	**108.90**	**Sqm**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer

Asst. Executive Engineer
Yelahanka Sub Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Pre-Measurement : 20/3/19

Item No	Discription of Item	Detailed Measurements	No	Length	Breadth	Depth	Qty	Unit
2	Earthwork in execavation for foundation of structure like culverts, retaining wall etc., as per drawing and technical specification, including setting out, construction of shoring and bracing, dressing of sides and bottom, back filling with approved material, disposal of balance earth as per specification, including cost of labour, HOM etc., complete. In all kinds of soil by manual means.							
	Desilt of Drain							
	JP Colony road							
			1	30.00	0.60	0.35	6.30	
			1	30.00	0.60	0.35	6.30	
			1	30.00	0.60	0.35	6.30	
			1	30.00	0.60	0.35	6.30	
			1	30.00	0.60	0.30	5.40	
			1	30.00	0.60	0.30	5.40	
			1	18.00	0.60	0.35	3.78	
	Prakruthi Layout							
	RCC Drain							
	1st cross	LHS	1	30.00	1.00	1.00	30.00	
			1	20.00	1.00	1.00	20.00	
	2nd cross	LHS	1	30.00	1.00	1.00	30.00	
			1	30.00	1.00	1.00	30.00	
			1	30.00	1.00	1.00	30.00	
			1	5.00	1.00	1.00	5.00	
		RHS	1	14.00	1.00	1.00	14.00	
			1	30.00	1.00	1.00	30.00	
			1	30.00	1.00	1.00	30.00	
			1	24.00	1.00	1.00	24.00	
	3rd cross	LHS	1	10.70	1.00	1.00	10.70	
			1	24.50	1.00	1.00	24.50	
			1	30.00	1.00	1.00	30.00	
			1	6.50	1.00	1.00	6.50	
			1	30.00	1.00	1.00	30.00	
			1	7.00	1.00	1.00	7.00	
		RHS	1	19.50	1.00	1.00	19.50	
			1	30.00	1.00	1.00	30.00	
			1	6.80	1.00	1.00	6.80	
			1	30.00	1.00	1.00	30.00	
			1	20.00	1.00	1.00	20.00	
	5th cross	RHS	1	15.00	1.00	1.00	15.00	
						Present Qty	**512.78**	**Cum**

Contractor

PMC

Assistant Engineer

Asst Executive Engineer
Yelahanka Sub Division
(BBMP Ynk Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Pre-Measurement : 29/3/19

Item No	Discription of Item		No	Length	Breadth	Depth	Qty	Unit
	Detailed Measurements							
3	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications.							
	Prakruthi Layout							
	RCC Drain							
	1st cross	LHS	1	30.00	0.90	0.15	4.05	
			1	20.00	0.90	0.15	2.70	
	2nd cross	LHS	1	30.00	0.90	0.15	4.05	
			1	30.00	0.90	0.15	4.05	
			1	30.00	0.90	0.15	4.05	
			1	5.00	0.90	0.15	0.68	
		RHS	1	14.00	0.90	0.15	1.89	
			1	30.00	0.90	0.15	4.05	
			1	30.00	0.90	0.15	4.05	
			1	24.00	0.90	0.15	3.24	
	3rd cross	LHS	1	10.70	0.90	0.15	1.44	
			1	24.50	0.90	0.15	3.31	
			1	30.00	0.90	0.15	4.05	
			1	6.50	0.90	0.15	0.88	
			1	30.00	0.90	0.15	4.05	
			1	7.00	0.90	0.15	0.95	
		RHS	1	19.50	0.90	0.15	2.63	
			1	30.00	0.90	0.15	4.05	
			1	6.80	0.90	0.15	0.92	
			1	30.00	0.90	0.15	4.05	
			1	20.00	0.90	0.15	2.70	
	5th cross	RHS	1	15.00	0.90	0.15	2.03	
						Present Qty	**63.86**	**Cum**

Contractor

PMC

Assistant Engineer

Assistant Executive Engineer
Yelahanka Sub Division
(BBMP Ynk Zone)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Pre-Measurement : 2/4/19

Item No	Discription of Item		Detailed Measurements No	Length	Breadth	Depth	Qty	Unit
5	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specificaitons.							
	Prakruthi Layout							
	RCC Drain							
	Wall							
	1st cross	LHS	4	30.00		0.60	72.00	
			4	20.00		0.60	48.00	
	2nd cross	LHS	4	30.00		0.60	72.00	
			4	30.00		0.60	72.00	
			4	30.00		0.60	72.00	
			4	5.00		0.60	12.00	
		RHS	4	14.00		0.60	33.60	
			4	30.00		0.60	72.00	
			4	30.00		0.60	72.00	
			4	24.00		0.60	57.60	
	3rd cross	LHS	4	10.70		0.60	25.68	
			4	24.50		0.60	58.80	
			4	30.00		0.60	72.00	
			4	6.50		0.60	15.60	
			4	30.00		0.60	72.00	
			4	7.00		0.60	16.80	
		RHS	4	19.50		0.60	46.80	
			4	30.00		0.60	72.00	
			4	6.80		0.60	16.32	
			4	30.00		0.60	72.00	
			4	20.00		0.60	48.00	
	5th cross	RHS	4	15.00		0.60	36.00	
						Present Qty	**1135.20**	**Sqm**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer

Asst. Executive Engineer
Yelahanka Sub Division
(BBMP Ynk Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Pre-Measurement : 2/4/19

Item No	Discription of Item	No	Length	Breadth	Depth	Qty	Unit
6	KSRRB - M2300-14: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, paleing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.						
	CC drain						
	1st cross						
	Total Drain length=50m						
	Main bar 12mm dia bar						
	0.89kg/mtr						
	No of U-bar=333.00Nos	333	2.00		0.89	592.74	
	Distribution bar						
	Distribution bar 10mm dia						
	0.61kg/mtr	11	50.00		0.61	335.50	
	2nd cross						
	Total Drain length=193m						
	Main bar 12mm dia bar						
	0.89kg/mtr						
	No of U-bar=1286.00Nos	1286	2.00		0.89	2289.08	
	Distribution bar						
	Distribution bar 10mm dia						
	0.61kg/mtr	13	193.00		0.61	1530.49	
	3rd cross						
	Total Drain length=215m						
	Main bar 12mm dia bar						
	0.89kg/mtr						
	No of U-bar=1433.00Nos	1433	2.00		0.89	2550.74	
	Distribution bar						
	Distribution bar 10mm dia						
	0.61kg/mtr	12	215.00		0.61	1573.80	
	5th cross						
	Total Drain length=20m						
	Main bar 12mm dia bar						
	0.89kg/mtr						
	No of U-bar=133.00Nos	133	2.00		0.89	236.74	
	Distribution bar						
	Distribution bar 10mm dia						
	0.61kg/mtr	11	20.00		0.61	134.20	
					Present Qty	**9243.29**	**Kg**
					Present Qty	**9.24**	**Tn**
					Limitted to	**9.22**	**Tn**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer

Asst. Executive Engineer
Yelahanka Sub Division
(BBMP Ynk Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Measurement : 20/5/17

Item No	Discription of Item	Detailed Measurements						Unit
			No	Length	Breadth	Depth	Qty	
8	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications.							
	For Road							
	Harohalli 7th cross							
	Ch:0.00m to 30.00m		1	30.00	(5.40 + 5.70)/2	0.35	58.28	
	Ch:30.00m to 60.00m		1	30.00	(5.70 + 5.50)/2	0.35	58.80	
	Ch:60.00m to 90.00m		1	30.00	(5.50 + 5.50)/2	0.35	57.75	
	Ch:90.00m to 120.00m		1	30.00	(5.50 + 5.60)/2	0.35	58.28	
	Ch:120.00m to 150.00m		1	30.00	(5.60 + 5.80)/2	0.35	59.85	
	Ch:150.00m to 180.00m		1	30.00	(5.80 + 5.80)/2	0.35	60.90	
	Ch:180.00m to 210.00m		1	30.00	(5.80 + 5.60)/2	0.35	59.85	
	Ch:210.00m to 240.00m		1	30.00	(5.60 + 5.70)/2	0.35	59.33	
	Ch:240.00m to 258.00m		1	18.00	(5.70 + 6.60)/2	0.35	38.75	
	Ch:258.00m to 284.00m		1	26.00	(6.60 + 6.20)/2	0.35	58.24	
	Ch:284.00m to 302.00m		1	18.00	(6.70 + 6.60)/2	0.35	41.90	
	Ch:302.00m to 322.00m		1	20.00	(6.80 + 6.50)/2	0.35	46.55	
	Ch:322.00m to 352.00m		1	30.00	(5.50 + 5.80)/2	0.35	59.33	
	Ch:352.00m to 382.00m		1	30.00	(5.80 + 5.80)/2	0.35	60.90	
	Ch:382.00m to 390.00m		1	8.00	(5.80 + 5.70)/2	0.35	16.10	

	JP Colony Road									
	Approach Road		1	4.50	6.00 + 4.60 / 2			0.35	8.35	
	Ch:0.00m to 30.00m		1	30.00	4.60 + 5.30 / 2			0.35	51.98	
	Ch:30.00m to 60.00m		1	30.00	5.30 + 5.20 / 2			0.35	55.13	
	Ch:60.00m to 90.00m		1	30.00	5.20 + 5.00 / 2			0.35	53.55	
	Ch:90.00m to 120.00m		1	30.00	5.00 + 4.60 / 2			0.35	50.40	
	Ch:120.00m to 150.00m		1	30.00	4.60 + 5.00 / 2			0.35	50.40	
	Ch:150.00m to 180.00m		1	30.00	5.00 + 5.20 / 2			0.35	53.55	
	Ch:180.00m to 198.20m		1	18.20	5.20 + 4.80 / 2			0.35	31.85	
								Present Qty	**1149.98**	**Cum**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer,
Yelahanka Sub Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Measurement : 30/5/19

Item No	Discription of Item		Detailed Measurements No	Length	Breadth	Depth	Qty	Unit
9	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.							
	For Road							
	Harohalli 7th cross							
	Ch:0.00m to 30.00m		1	30.00	(5.40 + 5.70)/2	0.15	24.98	
	Ch:30.00m to 60.00m		1	30.00	(5.70 + 5.50)/2	0.15	25.20	
	Ch:60.00m to 90.00m		1	30.00	(5.50 + 5.50)/2	0.15	24.75	
	Ch:90.00m to 120.00m		1	30.00	(5.50 + 5.60)/2	0.15	24.98	
	Ch:120.00m to 150.00m		1	30.00	(5.60 + 5.80)/2	0.15	25.65	
	Ch:150.00m to 180.00m		1	30.00	(5.80 + 5.80)/2	0.15	26.10	
	Ch:180.00m to 210.00m		1	30.00	(5.80 + 5.60)/2	0.15	25.65	
	Ch:210.00m to 240.00m		1	30.00	(5.60 + 5.70)/2	0.15	25.43	
	Ch:240.00m to 258.00m		1	18.00	(5.70 + 6.60)/2	0.15	16.61	
	Ch:258.00m to 284.00m		1	26.00	(6.60 + 6.20)/2	0.15	24.96	
	Ch:284.00m to 302.00m		1	18.00	(6.70 + 6.60)/2	0.15	17.96	
	Ch:302.00m to 322.00m		1	20.00	(6.80 + 6.50)/2	0.15	19.95	
	Ch:322.00m to 352.00m		1	30.00	(5.50 + 5.80)/2	0.15	25.43	
	Ch:352.00m to 382.00m		1	30.00	(5.80 + 5.80)/2	0.15	26.10	
	Ch:382.00m to 390.00m		1	8.00	(5.80 + 5.70)/2	0.15	6.90	
	JP Colony Road							

	Approach Road		1	4.50	6.00 + 4.60 / 2	0.15	3.58	
	Ch:0.00m to 30.00m		1	30.00	4.60 + 5.30 / 2	0.15	22.28	
	Ch:30.00m to 60.00m		1	30.00	5.30 + 5.20 / 2	0.15	23.63	
	Ch:60.00m to 90.00m		1	30.00	5.20 + 5.00 / 2	0.15	22.95	
	Ch:90.00m to 120.00m		1	30.00	5.00 + 4.60 / 2	0.15	21.60	
	Ch:120.00m to 150.00m		1	30.00	4.60 + 5.00 / 2	0.15	21.60	
	Ch:150.00m to 180.00m		1	30.00	5.00 + 5.20 / 2	0.15	22.95	
	Ch:180.00m to 198.20m		1	18.20	5.20 + 4.80 / 2	0.15	13.65	
						Present Qty	**492.85**	**Cum**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer
Yelahanka Sub Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Measurement : 14/6/19

Item No	Discription of Item		Detailed Measurements No	Length	Breadth	Depth	Qty	Unit
10	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications.							
	For Road							
	Harohalli 7th cross							
	Ch:0.00m to 30.00m		1	30.00	(5.40 + 5.70)/2	0.225	37.46	
	Ch:30.00m to 60.00m		1	30.00	(5.70 + 5.50)/2	0.225	37.80	
	Ch:60.00m to 90.00m		1	30.00	(5.50 + 5.50)/2	0.225	37.13	
	Ch:90.00m to 120.00m		1	30.00	(5.50 + 5.60)/2	0.225	37.46	
	Ch:120.00m to 150.00m		1	30.00	(5.60 + 5.80)/2	0.225	38.48	
	Ch:150.00m to 180.00m		1	30.00	(5.80 + 5.80)/2	0.225	39.15	
	Ch:180.00m to 210.00m		1	30.00	(5.80 + 5.60)/2	0.225	38.48	
	Ch:210.00m to 240.00m		1	30.00	(5.60 + 5.70)/2	0.225	38.14	
	Ch:240.00m to 258.00m		1	18.00	(5.70 + 6.60)/2	0.225	24.91	
	Ch:258.00m to 284.00m		1	26.00	(6.60 + 6.20)/2	0.225	37.44	
	Ch:284.00m to 302.00m		1	18.00	(6.70 + 6.60)/2	0.225	26.93	
	Ch:302.00m to 322.00m		1	20.00	(6.80 + 6.50)/2	0.225	29.93	
	Ch:322.00m to 352.00m		1	30.00	(5.50 + 5.80)/2	0.225	38.14	
	Ch:352.00m to 382.00m		1	30.00	(5.80 + 5.80)/2	0.225	39.15	

	Ch:382.00m to 390.00m		1	8.00	5.80 + 5.70 / 2	0.225	10.35	
	JP Colony Road							
	Approach Road		1	4.50	6.00 + 4.60 / 2	0.225	5.37	
	Ch:0.00m to 30.00m		1	30.00	4.60 + 5.30 / 2	0.225	33.41	
	Ch:30.00m to 60.00m		1	30.00	5.30 + 5.20 / 2	0.225	35.44	
	Ch:60.00m to 90.00m		1	30.00	5.20 + 5.00 / 2	0.225	34.43	
	Ch:90.00m to 120.00m		1	30.00	5.00 + 4.60 / 2	0.225	32.40	
	Ch:120.00m to 150.00m		1	30.00	4.60 + 5.00 / 2	0.225	32.40	
	Ch:150.00m to 180.00m		1	30.00	5.00 + 5.20 / 2	0.225	34.43	
	Ch:180.00m to 198.20m		1	18.20	5.20 + 4.80 / 2	0.225	20.48	
						Present Qty	**739.27**	**Cum**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer,
Yelahanka Sub. Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Measurement : 28/6/19

Item No	Discription of Item		Detailed Measurements No	Length	Breadth	Depth	Qty	Unit
11	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.							
	For Road							
	Harohalli 7th cross							
	Ch:0.00m to 30.00m		1	30.00	(5.40 + 5.70) / 2		166.50	
	Ch:30.00m to 60.00m		1	30.00	(5.70 + 5.50) / 2		168.00	
	Ch:60.00m to 90.00m		1	30.00	(5.50 + 5.50) / 2		165.00	
	Ch:90.00m to 120.00m		1	30.00	(5.50 + 5.60) / 2		166.50	
	Ch:120.00m to 150.00m		1	30.00	(5.60 + 5.80) / 2		171.00	
	Ch:150.00m to 180.00m		1	30.00	(5.80 + 5.80) / 2		174.00	
	Ch:180.00m to 210.00m		1	30.00	(5.80 + 5.60) / 2		171.00	
	Ch:210.00m to 240.00m		1	30.00	(5.60 + 5.70) / 2		169.50	
	Ch:240.00m to 258.00m		1	18.00	(5.70 + 6.60) / 2		110.70	
	Ch:258.00m to 284.00m		1	26.00	(6.60 + 6.20) / 2		166.40	
	Ch:284.00m to 302.00m		1	18.00	(6.70 + 6.60) / 2		119.70	
	Ch:302.00m to 322.00m		1	20.00	(6.80 + 6.50) / 2		133.00	
	Ch:322.00m to 352.00m		1	30.00	(5.50 + 5.80) / 2		169.50	
	Ch:352.00m to 382.00m		1	30.00	(5.80 + 5.80) / 2		174.00	
	Ch:382.00m to 390.00m		1	8.00	(5.80 + 5.70) / 2		46.00	
	JP Colony Road							

	Approach Road							
	Ch:0.00m to 30.00m		1	4.50	6.00 + 4.60 / 2		23.85	
	Ch:30.00m to 60.00m		1	30.00	4.60 + 5.30 / 2		148.50	
	Ch:60.00m to 90.00m		1	30.00	5.30 + 5.20 / 2		157.50	
	Ch:90.00m to 120.00m		1	30.00	5.20 + 5.00 / 2		153.00	
	Ch:120.00m to 150.00m		1	30.00	5.00 + 4.60 / 2		144.00	
	Ch:150.00m to 180.00m		1	30.00	4.60 + 5.00 / 2		144.00	
	Ch:180.00m to 198.20m		1	30.00	5.00 + 5.20 / 2		153.00	
			1	18.20	5.20 + 4.80 / 2		91.00	
						Present Qty	**3285.65**	**Cum**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer

Asst. Executive Engineer
Yelahanka Sub. Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Measurement : 29/6/19

Item No	Discription of Item		Detailed Measurements No	Length	Breadth	Depth	Qty	Unit
12	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision. - do - using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen (P.No.160 It.No.21.17.6) KPWD SR 2018-19							
	For Road							
	Harohalli 7th cross							
	Ch:0.00m to 30.00m		1	30.00	(5.40 + 5.70)/2	0.05	8.33	
	Ch:30.00m to 60.00m		1	30.00	(5.70 + 5.50)/2	0.05	8.40	
	Ch:60.00m to 90.00m		1	30.00	(5.50 + 5.50)/2	0.05	8.25	
	Ch:90.00m to 120.00m		1	30.00	(5.50 + 5.60)/2	0.05	8.33	
	Ch:120.00m to 150.00m		1	30.00	(5.60 + 5.80)/2	0.05	8.55	
	Ch:150.00m to 180.00m		1	30.00	(5.80 + 5.80)/2	0.05	8.70	
	Ch:180.00m to 210.00m		1	30.00	(5.80 + 5.60)/2	0.05	8.55	
	Ch:210.00m to 240.00m		1	30.00	(5.60 + 5.70)/2	0.05	8.48	
	Ch:240.00m to 258.00m		1	18.00	(5.70 + 6.60)/2	0.05	5.54	
	Ch:258.00m to 284.00m		1	26.00	(6.60 + 6.20)/2	0.05	8.32	
	Ch:284.00m to 302.00m		1	18.00	(6.70 + 6.60)/2	0.05	5.99	
	Ch:302.00m to 322.00m		1	20.00	(6.80 + 6.50)/2	0.05	6.65	
	Ch:322.00m to 352.00m		1	30.00	(5.50 + 5.80)/2	0.05	8.48	
	Ch:352.00m to 382.00m		1	30.00	(5.80 + 5.80)/2	0.05	8.70	

	Ch:382.00m to 390.00m		1	8.00	5.80 + 5.70 / 2		0.05	2.30	
	JP Colony Road								
	Approach Road		1	4.50	6.00 + 4.60 / 2		0.05	1.19	
	Ch:0.00m to 30.00m		1	30.00	4.60 + 5.30 / 2		0.05	7.43	
	Ch:30.00m to 60.00m		1	30.00	5.30 + 5.20 / 2		0.05	7.88	
	Ch:60.00m to 90.00m		1	30.00	5.20 + 5.00 / 2		0.05	7.65	
	Ch:90.00m to 120.00m		1	30.00	5.00 + 4.60 / 2		0.05	7.20	
	Ch:120.00m to 150.00m		1	30.00	4.60 + 5.00 / 2		0.05	7.20	
	Ch:150.00m to 180.00m		1	30.00	5.00 + 5.20 / 2		0.05	7.65	
	Ch:180.00m to 198.20m		1	18.20	5.20 + 4.80 / 2		0.05	4.55	
						Present Qty		**164.28**	**Cum**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer

Asst. Executive Engineer
Yelahanka Sub Division
(BBMP Ynk Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Measurement : 6/7/19

Item No	Discription of Item		Detailed Measurements No	Length	Breadth			Depth	Qty	Unit
13	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM									
	For Road									
	Harohalli 7th cross									
	Ch:0.00m to 30.00m		1	30.00	5.40 / 2	+	5.70		166.50	
	Ch:30.00m to 60.00m		1	30.00	5.70 / 2	+	5.50		168.00	
	Ch:60.00m to 90.00m		1	30.00	5.50 / 2	+	5.50		165.00	
	Ch:90.00m to 120.00m		1	30.00	5.50 / 2	+	5.60		166.50	
	Ch:120.00m to 150.00m		1	30.00	5.60 / 2	+	5.80		171.00	
	Ch:150.00m to 180.00m		1	30.00	5.80 / 2	+	5.80		174.00	
	Ch:180.00m to 210.00m		1	30.00	5.80 / 2	+	5.60		171.00	
	Ch:210.00m to 240.00m		1	30.00	5.60 / 2	+	5.70		169.50	
	Ch:240.00m to 258.00m		1	18.00	5.70 / 2	+	6.60		110.70	
	Ch:258.00m to 284.00m		1	26.00	6.60 / 2	+	6.20		166.40	
	Ch:284.00m to 302.00m		1	18.00	6.70 / 2	+	6.60		119.70	
	Ch:302.00m to 322.00m		1	20.00	6.80 / 2	+	6.50		133.00	
	Ch:322.00m to 352.00m		1	30.00	5.50 / 2	+	5.80		169.50	
	Ch:352.00m to 382.00m		1	30.00	5.80 / 2	+	5.80		174.00	
	Ch:382.00m to 390.00m		1	8.00	5.80 / 2	+	5.70		46.00	
	JP Colony Road									
	Approach Road		1	4.50	6.00 / 2	+	4.60		23.85	

	Ch:0.00m to 30.00m		1	30.00	4.60	+	5.30		148.50	
					2					
	Ch:30.00m to 60.00m		1	30.00	5.30	+	5.20		157.50	
					2					
	Ch:60.00m to 90.00m		1	30.00	5.20	+	5.00		153.00	
					2					
	Ch:90.00m to 120.00m		1	30.00	5.00	+	4.60		144.00	
					2					
	Ch:120.00m to 150.00m		1	30.00	4.60	+	5.00		144.00	
					2					
	Ch:150.00m to 180.00m		1	30.00	5.00	+	5.20		153.00	
					2					
	Ch:180.00m to 198.20m		1	18.20	5.20	+	4.80		91.00	
					2					
								Present Qty	**3285.65**	**Sqm**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer
Yelahanka Sub. Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore

"MEASUREMENT SHEETS"

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

"FIRST AND FINAL BILL"

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Pre-Measurement :

Detailed Measurements

Item No	Discription of Item		No	Length	Breadth	Depth	Qty	Unit
1	Removing & Refixing stone slabs of drains and pointing in C.M (1:3)							
	Vide premeasurement page no. 1						447.64	
						Present Qty	**447.64**	**Sqm**
2	Earthwork in execavation for foundation of structure like culverts, retaining wall etc., as per drawing and technical specification, including setting out, construction of shoring and bracing, dressing of sides and bottom, back filling with approved material, disposal of balance earth as per specification, including cost of labour, HOM etc., complete. In all kinds of soil by manual means.							
	Vide premeasurement page no. 2						512.78	
						Present Qty	**512.78**	**Cum**
3	KSRB 4-1.2: Providing and laying in position plain cement concrete of mix 1:3:6 with OPC @ 220kgs, with 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications.							
	Vide premeasurement page no. 3						63.86	
						Present Qty	**63.86**	**Cum**
5	KSRB 4-6.4 : Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specificaitons.							
	Vide premeasurement page no. 4						1135.20	
						Present Qty	**1135.20**	**Sqm**
6	KSRRB - M2300-14: Providing TMT steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, paleing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining memebrs wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications.							
	Vide premeasurement page no. 5						9.22	
						Present Qty	**9.22**	**Tn**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer,
Yelahanka Sub Division
(BBMP Kolar)
Yelahanka, Bangaloro

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Pre-Measurement :

Item No	Discription of Item		Detailed Measurements No	Length	Breadth	Depth	Qty	Unit
4	KSRB 4.2.2 : Providing and laying in position reinforced cement concrete of Design Mix M20 with OPC @ 320kgs, with 20mm and down size graded granite metal coarse aggregates @0.69cum and fine aggregtes @ 0.460 cum, with super plasticisers @ 3 liters confirming to IS 9103-1999 reafirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for all works in foundation for footings, pedastals, retaining walls, return walls, walls (any thickness) including attached pilasters, columnspillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc., including cost of all materials, labour, HOM curing,							
	Prakruthi Layout							
	RCC Drain							
	Raft							
	1st cross	LHS	1	30.00	0.80	0.15	3.60	
			1	20.00	0.80	0.15	2.40	
	2nd cross	LHS	1	30.00	0.80	0.15	3.60	
			1	30.00	0.80	0.15	3.60	
			1	30.00	0.80	0.15	3.60	
			1	5.00	0.80	0.15	0.60	
		RHS	1	14.00	0.80	0.15	1.68	
			1	30.00	0.80	0.15	3.60	
			1	30.00	0.80	0.15	3.60	
			1	24.00	0.80	0.15	2.88	
	3rd cross	LHS	1	10.70	0.80	0.15	1.28	
			1	24.50	0.80	0.15	2.94	
			1	30.00	0.80	0.15	3.60	
			1	6.50	0.80	0.15	0.78	
			1	30.00	0.80	0.15	3.60	
			1	7.00	0.80	0.15	0.84	
		RHS	1	19.50	0.80	0.15	2.34	
			1	30.00	0.80	0.15	3.60	
			1	6.80	0.80	0.15	0.82	
			1	30.00	0.80	0.15	3.60	
			1	20.00	0.80	0.15	2.40	
	5th cross	RHS	1	15.00	0.80	0.15	1.80	
	Wall							
	1st cross	LHS	2	30.00	0.15	0.60	5.40	
			2	20.00	0.15	0.60	3.60	
	2nd cross	LHS	2	30.00	0.15	0.60	5.40	
			2	30.00	0.15	0.60	5.40	
			2	30.00	0.15	0.60	5.40	
			2	5.00	0.15	0.60	0.90	

		RHS	2	14.00	0.15	0.60	2.52	
			2	30.00	0.15	0.60	5.40	
			2	30.00	0.15	0.60	5.40	
			2	24.00	0.15	0.60	4.32	
	3rd cross	LHS	2	10.70	0.15	0.60	1.93	
			2	24.50	0.15	0.60	4.41	
			2	30.00	0.15	0.60	5.40	
			2	6.50	0.15	0.60	1.17	
			2	30.00	0.15	0.60	5.40	
			2	7.00	0.15	0.60	1.26	
		RHS	2	19.50	0.15	0.60	3.51	
			2	30.00	0.15	0.60	5.40	
			2	6.80	0.15	0.60	1.22	
			2	30.00	0.15	0.60	5.40	
			2	20.00	0.15	0.60	3.60	
	5th cross	RHS	2	15.00	0.15	0.60	2.70	
						Present Qty	**141.90**	**Cum**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer,
Yelahanka Sub Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Pre-Measurement :

Detailed Measurements

Item No	Discription of Item		No	Length	Breadth	Depth	Qty	Unit
7	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge.							
	JP Colony road							
			1	10.80	0.90		9.72	
			1	14.00	0.90		12.60	
			1	11.00	0.90		9.90	
			1	9.00	0.90		8.10	
			1	12.00	0.90		10.80	
			1	16.00	0.90		14.40	
			1	9.00	0.90		8.10	
	Prakruthi Layout							
	RCC Drain							
	1st cross	LHS	1	30.00	0.75		22.50	
			1	20.00	0.75		15.00	
	2nd cross	LHS	1	30.00	0.75		22.50	
			1	30.00	0.75		22.50	
			1	30.00	0.75		22.50	
			1	5.00	0.75		3.75	
		RHS	1	14.00	0.75		10.50	
			1	30.00	0.75		22.50	
			1	30.00	0.75		22.50	
			1	24.00	0.75		18.00	
	3rd cross	LHS	1	10.70	0.75		8.03	
			1	24.50	0.75		18.38	
			1	30.00	0.75		22.50	
			1	6.50	0.75		4.88	
			1	30.00	0.75		22.50	
			1	7.00	0.75		5.25	
		RHS	1	19.50	0.75		14.63	
			1	30.00	0.75		22.50	
			1	6.80	0.75		5.10	
			1	30.00	0.75		22.50	
			1	20.00	0.75		15.00	
	5th cross	RHS	1	15.00	0.75		11.25	
						Present Qty	**428.37**	**Sqm**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer

Asst. Executive Engineer
Yelahanka Sub. Division
(BBMP Ynk. Zn.)

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Item No	Discription of Item		Detailed Measurements No	Length	Breadth	Depth	Qty	Unit
8	KSRRB M300-14. Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications.							
	Vide premeasurement page no. 6 to 7						1149.98	
						Present Qty	**1149.98**	**Cum**
9	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications.							
	Vide premeasurement page no. 8 to 9						492.85	
						Present Qty	**492.85**	**Cum**
10	KSRRB M400-17. Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per							
	Vide premeasurement page no. 10 to 11						739.27	
						Present Qty	**739.27**	**Cum**
11	KSRRB M500-6. Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications.							
	Vide premeasurement page no. 12 to 13						3285.65	
						Present Qty	**3285.65**	**Sqm**
12	KSRRB M500-17. Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V							
	Vide premeasurement page no. 14 to 15						164.28	
						Present Qty	**164.28**	**Cum**

13	KSRRB 500-7. Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications.						
	Vide premeasurement page no. 16 to 17						
						3285.65	
					Present Qty	**3285.65**	**Sqm**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer,
Yelahanka Sub Division
(BBMP Ynk Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Measurement : 08/7/19

Item No	Discription of Item		No	Length	Breadth			Depth	Qty	Unit
	Detailed Measurements									
14	KSRRB M500-19. Providing and laying bituminous concrete using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision. - do - using40/60 TPH capacity H.M.P. with Mechanical Paver Gr-II (30 mm to 40 mm) with 5.4% VG-30 Bitumen								
	For Road									
	Harohalli 7th cross									
	Ch:0.00m to 30.00m		1	30.00	5.40 / 2	+	5.70	0.04	6.66	
	Ch:30.00m to 60.00m		1	30.00	5.70 / 2	+	5.50	0.04	6.72	
	Ch:60.00m to 90.00m		1	30.00	5.50 / 2	+	5.50	0.04	6.60	
	Ch:90.00m to 120.00m		1	30.00	5.50 / 2	+	5.60	0.04	6.66	
	Ch:120.00m to 150.00m		1	30.00	5.60 / 2	+	5.80	0.04	6.84	
	Ch:150.00m to 180.00m		1	30.00	5.80 / 2	+	5.80	0.04	6.96	
	Ch:180.00m to 210.00m		1	30.00	5.80 / 2	+	5.60	0.04	6.84	
	Ch:210.00m to 240.00m		1	30.00	5.60 / 2	+	5.70	0.04	6.78	
	Ch:240.00m to 258.00m		1	18.00	5.70 / 2	+	6.60	0.04	4.43	
	Ch:258.00m to 284.00m		1	26.00	6.60 / 2	+	6.20	0.04	6.66	
	Ch:284.00m to 302.00m		1	18.00	6.70 / 2	+	6.60	0.04	4.79	
	Ch:302.00m to 322.00m		1	20.00	6.80 / 2	+	6.50	0.04	5.32	
	Ch:322.00m to 352.00m		1	30.00	5.50 / 2	+	5.80	0.04	6.78	
	Ch:352.00m to 382.00m		1	30.00	5.80 / 2	+	5.80	0.04	6.96	

	Ch:382.00m to 390.00m		1	8.00	5.80	+	5.70	0.04	1.84	
					2					
	JP Colony Road									
	Approach Road		1	4.50	6.00	+	4.60	0.04	0.95	
					2					
	Ch:0.00m to 30.00m		1	30.00	4.60	+	5.30	0.04	5.94	
					2					
	Ch:30.00m to 60.00m		1	30.00	5.30	+	5.20	0.04	6.30	
					2					
	Ch:60.00m to 90.00m		1	30.00	5.20	+	5.00	0.04	6.12	
					2					
	Ch:90.00m to 120.00m		1	30.00	5.00	+	4.60	0.04	5.76	
					2					
	Ch:120.00m to 150.00m		1	30.00	4.60	+	5.00	0.04	5.76	
					2					
	Ch:150.00m to 180.00m		1	30.00	5.00	+	5.20	0.04	6.12	
					2					
	Ch:180.00m to 198.20m		1	18.20	5.20	+	4.80	0.04	3.64	
					2					
								Present Qty	**131.43**	**Cum**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer,
Yelahanka Sub Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore

Name of Work: Improvements to Roads and Drains at J P Colony layout and Kenchenahalli Prakruthi Badavane in ward no-02 of Yelahanka Sub division

Date of Measurement : 15/7/19

Detailed Measurements

Item No	Discription of Item		No	Length	Breadth	Depth	Qty	Unit
15	KSRRB M800-13.Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications.							
	For Road							
	Harohalli 7th cross							
	Ch:0.00m to 30.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:30.00m to 60.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:60.00m to 90.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:90.00m to 120.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:120.00m to 150.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:150.00m to 180.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:180.00m to 210.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:210.00m to 240.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:240.00m to 258.00m		2.5	18.00	$\frac{0.10 + 0.10}{2}$		4.50	
	Ch:258.00m to 284.00m		2.5	26.00	$\frac{0.10 + 0.10}{2}$		6.50	
	Ch:284.00m to 302.00m		2.5	18.00	$\frac{0.10 + 0.10}{2}$		4.50	
	Ch:302.00m to 322.00m		2.5	20.00	$\frac{0.10 + 0.10}{2}$		5.00	
	Ch:322.00m to 352.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:352.00m to 382.00m		2.5	30.00	$\frac{0.10 + 0.10}{2}$		7.50	
	Ch:382.00m to 390.00m		2.5	0.00	$\frac{0.10 + 0.10}{2}$		0.00	

	JP Colony Road									
	Ch:0.00m to 30.00m		2.5	30.00	0.10 + 0.10 / 2				7.50	
	Ch:30.00m to 60.00m		2.5	30.00	0.10 + 0.10 / 2				7.50	
	Ch:60.00m to 90.00m		2.5	30.00	0.10 + 0.10 / 2				7.50	
	Ch:90.00m to 120.00m		2.5	30.00	0.10 + 0.10 / 2				7.50	
	Ch:120.00m to 150.00m		2.5	30.00	0.10 + 0.10 / 2				7.50	
	Ch:150.00m to 180.00m		2.5	30.00	0.10 + 0.10 / 2				7.50	
	Ch:180.00m to 198.20m		2.5	13.00	0.10 + 0.10 / 2				3.25	
								Present Qty	**143.75**	**Sqm**

Contractor

PMC

Assistant Engineer

Asst. Executive Engineer,
Yelahanka Sub Division
(BBMP Ynk. Zn)
Yelahanka, Bangalore